REMARKS

Claims 1-17 are now pending in the application. Claim 10 is allowed, Claim 4 is allowable if rewritten into independent form, and Claims 1-3, 5-9 and 11-17 stand rejected. Claims 1-3, 5-7, and 16 have been cancelled, with traverse. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 8, 9, 11-14, and 17 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claim rejections are respectfully traversed.

Claim 8 is directed to a set of consumables comprising a dielectric standoff and has been amended to more particularly point out and distinctly claim the set of consumable components and where the dielectric standoff is positioned. Moreover, the definiteness of claim language under 35 U.S.C. §112, second paragraph, must be analyzed in light of, among other things, the content of the particular application disclosure. For example, paragraph [0065] of the specification defines a dielectric standoff as "provided between a cathode body and an anode body within the torch head such that the high frequency, or high voltage, does not penetrate or arc through the insulating body and cause the torch to malfunction." Additionally, paragraph [0067] of the specification further illustrates that the dielectric standoff can be provided in the form of thicker insulating bodies. It is completely proper to use the specification to interpret a term in a claim, and, since the term "dielectric standoff" has a clear definition in the

specification, Claim 8, though reciting the term without specifying its structure, is not indefinite. Accordingly, Applicants respectfully request that rejection of Claim 8 under 35 U.S.C. §112 be withdrawn.

Claim 9 depends from amended Claim 8 and is not indefinite for at least the reasons state above in connection with Claim 8. Accordingly, Applicants respectfully request that rejection of Claim 9 under 35 U.S.C. §112 be withdrawn.

Claim 11 has similarly been amended to more particularly point out and distinctly claim where the dielectric standoff is positioned. Referring to the argument above in connection with Claim 8, since a dielectric standoff has been clearly defined in the specification, recitation of the term "dielectric standoff" in the claim without defining its specific structure does not make Claim 11 indefinite. Accordingly, Applicants respectfully request that rejection of Claim 11 under 35 U.S.C. §112 be withdrawn.

Claims 12-14 each depend from Claim 11 and are definite for at least the reasons stated above in connection with Claim 11. Accordingly, Applicants respectfully request that rejection of Claims 12-14 be withdrawn.

Claim 17 has also been amended to more particularly point out and distinctly claim where the dielectric standoff is positioned and what the dielectric standoff does. Accordingly, Applicants submit that amended Claim 17 is definite and respectfully request that the rejection of Claim 17 under 35 U.S.C. §112 be withdrawn.

REJECTION UNDER 35 U.S.C. § 102

Claims 11-17 stand rejected under 35 U.S.C. §102 as being anticipated by Lu, U.S. 5,994,663. These claim rejections are respectfully traversed.

Lu '663 is limited to a contact start plasma torch that functions with a corresponding contact start power supply, **not** a high frequency power supply. Quite pointedly, Lu '663 discusses the differences between high frequency starting and contact starting in its Background section at Column 1, Lines 33-51 and goes on to discuss the disadvantages of known art **contact start plasma torches** and that "there exists a need to provide a plasma arc torch contact start configuration ..." (Col. 2, Lines 61-62). Clearly, Lu '663 is exclusively limited to a contact start plasma torch, (see, e.g., "An improved **contact start plasma arc torch** and method are disclosed ..." Col. 2, Line 66), and does not include any torch configuration whatsoever that is operational with a high frequency power supply. The components of the contact start plasma torch of Lu '663, including the swirl ring 158, are specifically designed for a contact start power supply, and in fact, if attempts were made to operate these components with a high frequency power supply, there would not be sufficient dielectric standoff between anodic and cathodic components so as to prevent arcing between components other than between the electrode and the tip.

Lu '663 does not disclose how a contact start plasma torch can be operated in **both** a contact start mode **and** a high-frequency mode, nor the provision of a dielectric standoff in a plasma arc torch to modify a contact start plasma arc torch to be operable under high frequency.

Claims 11, 15, and 17 require that the contact start torch be operable under high frequency, a limitation that is clearly not disclosed or even suggested by Lu '663. Therefore, since Lu '663 is limited to a contact start torch only that is not operable under

high frequency, Applicants submit that Claims 11, 15, and 17 cannot be anticipated and respectfully request that these claim rejections be withdrawn.

Claims 12-14 depend from Claim 11 and distinguish over Lu '663 for at least the reasons stated above in connection with Claim 11. Moreover, contrary to what is stated in the Outstanding Office Action, Claims 12 and 13 are not identical because Claim 12 defines the dielectric standoff as being disposed "between" components of a plasma arc apparatus while Claim 13 defines the same as being disposed "within" components of a plasma arc apparatus. Accordingly, Applicants respectfully request that rejection of Claims 12-14 be withdrawn.

Claim 16 has been cancelled, with traverse.

Claims 1-3 and 5-7 stand rejected under 35 U.S.C. §102 as being anticipated by Couch, Jr. et al., U.S. 5,170,033.

Claims 1-3 and 5-7 have been cancelled, with traverse. Therefore, these claim rejections are now moot.

Claims 8 and 9 stand rejected under 35 U.S.C. §102 as being anticipated by Sanders et al., 5,132,512. These claim rejections are respectfully traversed.

Amended Claim 8 is directed to a set of consumables for use in a plurality of plasma arc torches, the set of consumables comprising a dielectric standoff sized such that the set of consumables are operable under **both** contact start **and** high frequency start modes of the plasma arc torches.

Sanders et al. discloses a nozzle shield system which is used to protect the nozzle from splattered molten metal during cutting and which provides for improved

cooling of the nozzle through bleed ports. Sanders is silent as to the operation of a contact start power supply or a high frequency power supply.

Accordingly, Sanders et al. does not disclose how a set of consumable components are operable under **both** contact start **and** high frequency nor how a contact start torch can be modified to operate under high frequency. Therefore, Claim 8 cannot be anticipated and Applicants respectfully request that the rejection of Claim 8 be withdrawn.

Claim 9 depends from Claim 8 and distinguishes over Sanders et al. for at least the reasons stated above in connection with Claim 8. Accordingly, Applicants respectfully request that the rejection of Claim 9 be withdrawn.

ALLOWABLE SUBJECT MATTER

The Outstanding Office Action states that Claim 10 is allowable.

The Outstanding Office Action further states that Claim 4 would be allowable if rewritten into independent form. Accordingly, Applicants have rewritten Claim 4 into independent form and submit that Claim 4 is now in condition for allowance.

NEW CLAIMS

Applicants have added new Claims 18-20, which are directed to a dual mode torch comprising a number of specific components comprising a dielectric standoff, wherein the position of the dielectric standoff is set forth and the dielectric standoff functions to allow the dual mode torch to be operated with both a high frequency power supply and a contact start power supply. For at least the reasons stated above in connection with the outstanding claim rejections, Applicants submit that these new

claims are in condition for allowance and respectfully request favorable consideration thereof.

CONCLUSION

It is believed that all of the stated grounds of objection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding objections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7524.

Respectfully submitted,

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